

1 ABSTRACT

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4 An optical preamplifier with received signal strength
5 indicating function is disclosed that does not increase the
6 number of terminals. The preamplifier includes an amplifier
7 stage having cascaded amplifiers and a current mode output stage
8 with Darlington pair transistors. The amplifier stage has a
9 signal input to the cascaded amplifiers, two signal output
10 terminals from the Darlington pair transistors, a power input
11 terminal, and a return terminal. A PIN photodiode has one
12 terminal coupled to the signal input of the amplifier stage and a
13 second terminal coupled through a resistance to one of the two
14 signal output terminals so as to provide the received signal
15 strength indicating function between the two signal output
16 terminals.